SIGMA

GENERAL SERVICES ADMINISTRATION

FEDERAL SUPPLY SERVICE

SCHEDULE PRICE LIST

FEDERAL SUPPLY SCHEDULE INDUSTRIAL GROUP 871-7

SIN 871-7 CONSTRUCTION MANAGEMENT

Professional Engineering Services

Sigma Associates, Inc.
1900 St. Antoine Street, Suite 500
Detroit, MI 48226
(313) 963-9700
(313) 963-7626 fax
www.sigmaassociates.com
Contract Administrator: Elham Shayota, PE

GSA Schedule Contract

Contract Number: **GS-10F-0452Y**
Period Covered by Contract: *September 4, 2012 through September 3, 2017*

Business Status

Women-Owned Small Business (WOSB)
SBA Certified Small Disadvantaged Business

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order is available through **GSA** *Advantage!,* a menu-driven database system.
The INTERNET address for **GSA** *Advantage!* is **http://www.gsaadvantage.gov**

For more information on ordering from Federal Supply Schedules, go to the GSA schedules home page at:
http://www.fss.gsa.gov/

CUSTOMER INFORMATION

1a.	**Awarded Special Item Numbers and Prices:**	SIN 871-7 -CONSTRUCTION MANAGEMENT
1b.	**Labor Rates:**	See **Appendix A** for Labor Rates**.**
1c.	**Labor Category Descriptions:**	See **Appendix B.**
2.	**Maximum Order:**	$1,000,000
3.	**Minimum Order:**	$100
4.	**Geographic Coverage:**	Domestic Only
5.	**Points of Production:**	1900 St. Antoine Street, Suite 500, Detroit, MI 48226
6.	**Discounts from List Prices:**	The prices reflected are discounted hourly rates.
7.	**Other Discounts:**	Discounts may be offered under the following circumstances: Task Orders with a value over $250,000 (discounted at 0.5%), and Task Orders with a value over $500,000 (discounted at 1.0%).
8.	**Prompt Payment Terms:**	Net 30 days (discounted 1% Net 20 days)
9a.	**Notification that Government purchase cards are accepted at or below micro-purchase threshold:**	Yes
9b.	**Notification that Government purchase cards are accepted or not accepted above micro-purchase threshold:**	Will accept over $3,000
10.	**Foreign items:**	Not Applicable
11a.	**Time of Delivery:**	Specified in each task order
11b.	**Expedited Delivery:**	Contact Contractor
11c.	**Overnight and 2-Day Delivery:**	Contact Contractor
11d.	**Urgent Requirements:**	Contact Contractor
12.	**FOB:**	Destination
13a.	**Ordering Address:**	Sigma Associates, Inc. 1900 St. Antoine Street Suite 500 Detroit, MI 48226
13b.	**Ordering Procedures:**	The ordering procedures for supplies and services, information on Blanket Purchase Agreements (BPA), and a sample BPA can be found at the GSA/FSS Schedule homepage (http://www.gsa.gov/schedules).
14.	**Payment Address:**	Sigma Associates, Inc. 1900 St. Antoine Street, Suite 500, Detroit, MI 48226
15.	**Warranty Provision:**	Not applicable
16.	**Export Packing Charges:**	Not applicable
17.	**Terms and conditions of Government commercial credit card acceptance:**	Contact Sigma Associates, Inc.
18.	**Terms and conditions of Government rental, maintenance, and repair:**	Not applicable
19.	**Terms and conditions of installation:**	Not applicable
20.	**Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices:**	Not applicable
21.	**List of service and distribution points:**	Not applicable
22.	**List of participating dealers:**	Not applicable
23.	**Preventive Maintenance:**	Not applicable
24a.	**Special attributes such as environmental attributes:**	Not applicable
24b.	**Section 508 Compliance:**	Not applicable
25.	**Data Universal Number (DUNS):**	095400438
26.	**Registration in CCR database:**	Sigma Associates, Inc. is registered in the CCR Database. Sigma Associates, Inc. registered in the System for Award Management (SAM).

SIGMA

GSA Schedule Contract

COMPANY OVERVIEW

Firm Description:

Sigma Associates, Inc., (Sigma) is a Woman-Owned Small Business (WOSB) and SBA Certified Small Disadvantaged Business, founded in 1978 by Elham Shayota, P.E., a professional engineer registered in Michigan, Indiana, and Ohio. Sigma is a full service organization offering multi-disciplinary engineering, with in-house capabilities in Electrical Engineering (EE), Civil/Structural Engineering (CE), Mechanical Engineering (ME), Architecture, program management, environmental, construction management and administration, and Information Technology services. Sigma provides solutions from project conception through completion. Sigma has a distinguished history of delivering innovative and sustainable process solutions for our clients.

Experience and Services:

Sigma has offices in Michigan, Ohio, Indiana and Washington, DC. With 34 years of experience in the industry, Sigma provides the necessary knowledge, experience and expertise to deliver engineering services specific to meet the clients' specific project needs, goal and requirements. We provide support through all phases of the project from strategic planning and development through design, system integration and operation. Sigma's project experience includes new design as well as rehabilitation or replacement of critical assets such as facilities, equipment, and processes. Sigma also provides design-build services. Sigma has provided construction services for individual projects in excess of $180 million, and has managed well over a billion dollars in completed construction contracts.

Professional Engineering Services include initial mission analysis; assisting in developing program goals and objectives; preparing performance assessments; and risks identification and special studies. These services include project concept studies, preliminary planning, technical basis of design, feasibility analysis, conceptual designs**,** life cycle analysis and identifying regulatory compliance issues. Sigma provides computer-aided design, design studies, design detailed specifications, and project specific document control protocols.

Sigma provides strategic planning, standards development, master planning, program management, construction management, design-build, system design, systems engineering and integration, start-up, logistics support, operations and maintenance services. These services can include: project start-up, testing, inspections, evaluations, training and documents facility commissioning. We participate in the planning and detailed design of engineering specific logistics for material goods, maintenance, procedures development and system training. During construction, we have overseen the construction planning, construction budgeting, and contracts. We also provide training and support during design-build projects.

Sigma Associates, Inc. shall utilize construction managers as its principal agent to provide advice or manage the process for the project regardless of the project delivery method used. The Construction Manager assumes the position of professional adviser or serves as an extension of the customer agency's staff. The Construction Manager frequently helps the customer agency identify which delivery method is the best for the project. The construction management approach utilizes a firm (or team of firms) with construction, design and management expertise to temporarily expand the customer agency's capabilities so that they can successfully accomplish their program or project. The Construction Manager also provides expert advice in support of the customer agency's decisions in the implementation of the project.

The following are some of the tasks to be covered under Construction Management:

Project Design Phase Services - These services may include, but are not limited to, the following:

- Subject matter expertise
- Delivery methods
- Design technical reviews
- Code compliance reviews
- Constructability reviews
- Analysis of value engineering proposals or Earned Value Management Systems (EVMS)
- Preparation of cost estimates (including independent check estimates)
- Cost analysis
- Cost control/monitoring
- Energy studies
- Utility studies
- Site investigations
- Site evaluations
- Review of design scope changes
- Scheduling/conducting/documenting design related meetings
- Market studies

Project Procurement Phase Services - These services may include, but are not limited to, the following:

- Assisting procurement contracting officers
- Assisting contracting officers in answering bid/RFP questions
- Attending/participating in site visits
- Attending/participating in pre-bid conferences
- Preparing and issuing solicitation amendments for review and approval by the government contracting officer
- Performing cost/bid/proposal analysis

Project Construction Phase Services - These services may include, but are not limited to, the following:

- Assisting administrative contracting officers
- Establishing temporary field offices
- Setting up job files, working folders, and record keeping
- Maintaining organized construction files
- Scheduling and conducting pre-construction meetings
- Documenting actions taken and decisions made
- Monitoring the submittal review process
- Review and monitoring of project schedules for construction progress with emphasis on milestone completion dates, phasing requirements, workflow, material deliveries, test dates
- Assisting in problem resolution and handling of disputed issues (including development of government position)
- Maintaining marked-up sets of project plans and specifications for future as-built drawings
- Performing routine inspections of construction as work proceeds
- Taking action to identify work that does not conform to the contract requirements and notifying the contractors when work requires correction
- Compiling, through site inspections; lists of defects and omissions related to the work performed and providing these lists to the contractor for correction
- Review of construction contractor payment requests (including preparation of necessary forms for payment processing)
- Monitoring project financial data and budgetary cost accounting;
- Administration of construction contract change orders (issuing proposal requests, preparing cost estimates, reviewing cost proposals, assisting agency in negotiations, preparing change order packages for processing)
- Scheduling, conducting, and documenting regular progress meetings with all interested parties to review project status; discuss problems, and resolve issues
- Scheduling, conducting, and documenting (prepare minutes, etc. For distribution) construction related project meetings
- Monitoring construction contractor compliance with established safety standards (note and report unsafe working conditions, failures to adhere to safety plan required by construction contract)
- Monitoring construction contractor's compliance with contract labor standards; coordination of construction activities with customer managers and occupying agency personnel
- Monitoring the design and construction clarification process and, when appropriate, reminding the a/e and other parties involved of the need for timely actions
- Participating in all "partnering" activities during construction (workshops, meetings, etc.)
- Preparing special reports and regular project status reports
- Providing for progress and/or final photographs of project work; evaluate site surveys; conduct investigations; provide assistance in obtaining permits
- Perform hazardous material assessments and monitoring of hazardous material abatement work
- Provide cost estimating assistance
- Assisting termination contracting officers
- Pre-occupancy evaluations

Fire Protection Services - These services may include, but are not limited to, the following: design review services, shop drawing and submittal reviews, inspection and testing services, performing inspections and witnessing acceptance testing of fire protection and life safety systems, construction inspection services, fire and smoke modeling and analysis services, loss investigation services, technical consultant services, conducting fire protection facility surveys, developing risk reduction strategies and recommendations to mitigate identified risk conditions, conducting research studies, maintenance program for fire protection and life safety systems, and developing and completing fire safety evaluation worksheets.

Government agencies may use Fire Protection Engineer(s) (FPE) as its principal agent to advise on or manage projects. The FPE assumes the position of professional adviser and expands the government's capabilities. The FPE frequently helps the Government agency identify issues that protect people and their environments from the destructive effects of fire and smoke. The FPE expertise is used to temporarily expand the Government agency's capabilities, so that the Government agency can successfully accomplish its program or project, while ensuring the safety of its people and property. The FPE provides expert advice in support of the Government agency's decisions in the implementation of the project.

The discipline of Fire Protection Engineering includes but is not limited to:

- Active fire protection - fire suppression systems, and fire alarm.
- Passive fire protection - fire and smoke barriers, space separation
- Smoke control and management
- Escape facilities- Emergency exits, Fire lifts, etc.
- Building design, layout, and space planning
- Fire prevention programs
- Fire dynamics and fire modeling
- Human behavior during fire events
- Risk analysis, including economic factors

The following services are allowed under Fire Protection Engineering Services:

I. Design Review Services

Perform design reviews for multiple stages of design (e.g., 75%, 95%, 100%, etc.) for various planned building renovation projects and/or new construction projects associated with fire protection and life safety systems. Design reviews, may include, but are not limited to the following:

a. Review design drawings and specifications related to the fire protection and life safety aspects of the design for compliance with government agency fire protection and life safety requirements and applicable federal, state, regional, and local government's national codes and standards
b. Review the continuity of and coordination between drawings and contract specifications related to the fire protection and life safety aspects of the design
c. Review change orders and RFIs for projects
d. Review as-built drawings
e. Develop or review scope(s) for projects that impact building fire protection & life safety

systems

f. Develop or review project work items
g. Develop or review cost estimates for fire protection & life safety systems
h. Develop and review bid documents
i. Participate in design review meetings. Includes, participating in discussions with government agency personnel, members of the design team, etc., to discuss the design as well as review comments

II. Shop Drawing/Submittal Review Services

a. Perform shop drawing/submittal reviews for projects (e.g., shop drawings, calculations and product catalog data sheets, and other pertinent project information)
b. Perform an evaluation to determine that proposed fire protection and life safety systems and equipment and their associated components submitted for review are in compliance with the contract specifications, design drawings, manufacturer's recommendations, government agency requirements, and the applicable federal, state, regional, and local government's national codes and standards
c. Perform shop drawing/submittal reviews to determine any conflicts with the design contract plans and specifications or any potential design changes that may be needed during the submittal reviews (i.e., additional equipment, relocation of equipment, etc.)

III. Inspection & Testing Services

a. Review contract documents/drawings and notify contractors of potential mechanical, construction and fire protection and life safety system coordination issues
b. Develop or review pretesting protocols of fire protection and life safety systems and equipment prior to testing
c. Perform site investigations to evaluate fire protection and life safety systems and equipment for compliance with federal, state, regional, and local government's national codes and standards. Perform contractor performance monitoring (e.g., preventive maintenance contractors, installation contractors, etc.) associated with fire protection and life safety systems
d. Perform system inspections and analysis of existing fire protection and life safety systems and equipment
e. Perform microbiologically influence corrosion analysis of fire sprinkler systems
f. Witness acceptance testing of fire protection and life safety systems and equipment (e.g., fixed fire suppression and control systems, fire alarm systems, emergency communication systems, mass notification systems, smoke control and management systems, normal and emergency power and lighting systems, explosion prevention and control systems, fire and smoke resistant assemblies, means of egress and components, and other active and passive fire protection and life systems and equipment, etc.) and document results, to evaluate operations and to verify adherence to construction contract requirements (or the lease agreement, if applicable), applicable federal, state, regional, and local government's national codes and standards, government agency requirements, and standard industry practices

IV. Construction Inspection Services:

a. Perform site inspection services at various levels of the construction process (e.g., 50%, 75%, 95%, etc.). The inspections may include building construction (i.e., fire and smoke rated walls, shafts, barriers, etc.), fire protection and life safety systems, integrating with other building systems, etc. to verify proper installation in accordance with the contract design drawings, specifications (or solicitation if the project is lease construction), and applicable federal, state, regional, and local government's national codes and standards
b. Provide central location for archiving and storage of building drawings, computer files, design and construction correspondence, regulatory information, EVMS, estimates/payment, QA/QC, materials, zoning, historical preservation, energy and other special documents

V. Fire & Smoke Modeling/ Analysis Services:

a. Perform fire and smoke modeling to analyze fire growth, smoke development and movement, fuel load, egress times, smoke management designs, suppression system activation, structural fire engineering, etc. Review fire and smoke modeling reports
b. Perform or review fire hazard analysis to determine national Fire Code limitations, commodity compatibility, compartmentalization issues, suppression system design criteria, etc.

VI. Technical Consultant Services:

a. Perform technical fire protection engineering consultant services which may include, but are not limited to the following:

i. Perform facility fire protection engineering and/or life safety assessments
ii. Perform national building and fire code analysis
iii. Perform analyses of fire protection water supplies, fire sprinkler systems, fire pumps, etc.
iv. Perform or review interpretations of requirements in federal, state, regional, and local government's national codes and standards
v. Perform fire protection water supply testing
vi. Perform quality assurance/control and oversee fire protection contractors operation, inspection, testing, and maintenance practices
vii. Perform accessibility compliance review
viii. Perform joint commission assessments
ix. Perform fire risk assessments to identify risks, assess risks, and to develop economic strategies to mitigate those identified risks
x. Perform egress analysis, fire and life safety evaluations, human behavior analysis, performance-based analysis, etc.
xi. Review fire protection policy documents, design guides, etc.
xii. Review engineering reports or studies which relate to fire protection
xiii. Review contractor-conducted facility fire protection engineering and/or life safety assessments
xiv. Review adequacy of occupant egress and other fire protection systems within a facility

xv. Review products (e.g., electronic door locking system, polybutylene fire sprinkler piping, flammable liquid container performance, etc.) for federal, state, regional, and local government's national codes and standards compliance
xvi. Develop or review risk reduction strategies based on unique characteristics of the facility
xvii. Develop or review fire protection related specifications
xviii. Develop or review government agency fire protection technical guidance
xix. Develop or review exit calculations, fire pump calculations, risk assessments, hydraulic sprinkler calculations, etc.
xx. Develop or review alternative design methods for building code compliance
xxi. Develop or review wildland exposure analysis/wildland interface analysis to identify the fire and life safety hazards of an urban wildland interface area
xxii. Develop or review fire protection and life safety master plans
xxiii. Develop or review facility occupant emergency evacuation plan
xxiv. Develop or review approaches that integrate various building systems into a comprehensive fire protection and life safety package
xxv. Develop or review fire protection related training materials for government agency personnel and customers
xxvi. Develop or review fire protection engineering analyses to demonstrate equivalent level of fire safety for office buildings
xxvii. Evaluate capability of existing fire protection and life safety systems and equipment
xxviii. Evaluate and report on building systems for feasibility for integrating with fire protection and life safety systems and equipment (e.g. extinguishers)

Commissioning Services - These services may include, but are not limited to, the following:

- Professional and technical expertise for assistance with start-up, calibration, and/or certification of a facility or operating systems within a facility, to include commissioning of fire protection and life safety systems and equipment
- Start-up planning, forecasting start-up duration, estimating start-up costs, determining start-up objectives, organizing start-up teams and team assignments, testing building system components, conducting performance tests
- Witness commissioning of fire protection and life safety systems and equipment
- Perform commissioning of fire protection and life safety systems and equipment

Testing Services - These services may include, but are not limited to the following:

- Testing and inspection of soils
- Concrete
- Precast concrete connections
- Steel
- Steel decking
- Applied fireproofing
- Roofing
- Curtain walls/glazing
- Elevator installations

Claims Services - The CM will review disputes and claims from the A/E and/or construction contractor(s) and render all assistance that the government may require, including, but not limited to, the following:

- Furnishing reports with supporting information necessary to resolve disputes or defend against the claims
- Preparation and assembly of appeal files
- Participation in meetings or negotiations with claimants
- Appearance in legal proceedings
- Preparation of cost estimates for use in claims negotiations
- Preparation of risk assessments/analyses relative to claim exposures
- Preparation of findings of fact and any other documentation required by the government

Post Construction Services - At or near substantial completion of project construction, the CM may be tasked to provide services including, but not limited to, the following:

- Performing Post Occupancy Evaluations (POEs)
- Assisting government agencies in the formulation of lessons learned
- Providing occupancy planning including development of move schedules, cost estimates, inventory lists, etc.
- Providing move coordination, relocation assistance, and/or furniture coordination

Pre-Demolition

- Scrapping evaluation, analysis, estimating and disposal reporting for material recovery.

APPENDIX A LABOR RATES

Labor Category	Contractor Base Year Price (incl. IFF)	Government Base Year Price (incl. IFF)
Officer-in-Charge	$233.27	$216.94
QA/QC	$226.56	$210.70
Lead Process	$214.72	$199.69
Project Manager	$180.79	$168.13
Deputy Project Manager	$150.08	$139.57
Senior Engineer	$131.21	$122.03
Project Engineer	$116.63	$108.47
Engineer	$96.22	$89.49
Senior Designer	$129.53	$120.46
Designer	$102.90	$95.70
Technician / CADD	$72.90	$67.79
Project Administration	$43.74	$40.68

SCA MATRIX

SCA Eligible Contract Labor Category	SCA Equivalent Code Title	WD Number
Technician / CADD	30061 – Drafter I	2005-2103
Project Administration	01611 – Word Processor I	2005-2103

The Service Contract Act (SCA) is applicable to this contract and it includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number identified in the SCA matrix. The prices offered are based on the preponderance of where work is performed and should the contractor perform in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.

APPENDIX B LABOR CATEGORY DESCRIPTIONS

Sigma Labor Category	Minimum Education	Minimum Experience
Officer-in-Charge	**BS/BA Degree**	**20 Years**

- Officer-in-Charge having corporate authorization to procure contracts, including customer interface for large scale projects. Carries significant company authority and responsibility to commit corporate resources.
- Responsible for performing internal audits and client audits and assuring client satisfaction.
- Senior Technical Representative on large complex projects, having authority to act as corporate consultant and Program Manager on multiple contract tasks.
- Responsibilities include program and project development from project concept planning phase, to design, procurement and construction phases, as well as overall management and oversight of project funding and scheduling.
- Fully capable of providing consultation to Project Managers and Project Engineers. Provides expert support on an as-needed basis. Must be registered or equivalent, in their area of practice.
- Hires, evaluates and develops staff.

Sigma Labor Category	Minimum Education	Minimum Experience
QA/QC	**BS/BA Degree in Engineering, Architecture or Quality Control**	**15 Years**

- Senior level QA/QC having a thorough understanding of the quality procedures of all activities/tasks of the project team and a thorough understanding of the clients requirements, too.
- Provide Leadership for Quality Assurance teams aligned with Architectural and Engineering services.
- Functional Responsibility includes establishing and promoting collaborative relationships with all project team members.
- Responsible for all quality matters
- Prepares project specific Quality Assurance Plans.
- Plan and direct development, implementation, and maintenance of quality control standards with other QA professionals.
- Establish metrics for the management and continuous improvement of the QA function.
- Ensure that all QA teams comply with audit requirements and are responsible for quality assurance reviews and the evaluation and documentation of procedures including finished product specifications.

Sigma Labor Category	Minimum Education	Minimum Experience
Lead Process	**BS Degree**	**20 Years; 18 Years w/MS**

- Lead Process Professional who provides day-to-day supervision and direction to a number of Engineers working under the direction of the Project Engineer. Will operate performing other unsupervised actions or decisions and will also provide daily supervision and direction to support staff.
- Plans, leads and performs a broad range of technical assignments.
- Will apply comprehensive technical knowledge of a variety of engineering principles and practices on a project specific level.
- Client contact is routine and frequent while supporting Project Manager.

Sigma Labor Category	Minimum Education	Minimum Experience
Project Manager	**BS/BA Degree**	**20 Years; 18 Years w/MS, MA**

- Project Manager serves as the primary contact with the client and manages projects to meet client requirements.
- Responsible party for the quality of the work prepared by the design team working under the direction of the Project Manager.
- Responsible for performing internal audits and client audits and assuring client satisfaction.
- Prepares independent evaluation of project information for complex and dynamic tasks.
- Provides direction to the project team in preparing accurate, economical and effective solutions for each project.
- Reviews project budgets based upon experience and scope of the project requirements.
- Provides authoritative technical expertise, advice and direction on complex problems.
- The Project Manager will coordinate the overall efforts of the design staff including technicians, and will work on individual technical tasks, make formal presentations to clients.
- Will provide assistance in preparing and analyzing project and construction costs.
- Manages projects of broad scope and has authority to commit corporate resources.

Sigma Labor Category	Minimum Education	Minimum Experience
Deputy Project Manager	**BS/BA Degree**	**15 Years; 13 Years w/MS, MA**

- Deputy Project Manager coordinates, assigns and reviews the efforts of the Engineering staff, including facilitating communication among project managers.
- Manages a core area of business services that may be diverse in scope, requiring complex judgments based on analytical thought. Manages programs of broad scope and has authority to commit corporate resources.
- Provides authoritative technical expertise, advice and direction on complex problems requiring innovative approaches to solve.
- Responsible for performing internal audits and client audits and assuring client satisfaction.
- Provides leadership and direction for the training and development of staff. May also, oversee the project management activities of other senior Project Manager's, or administer directly projects of unlimited budgets.
- Performs QA/QC oversight and coordination and assigns team of Sr. Engineers to review projects. Prepare or review program budgets based upon experience and scope of the program projects and goals.

Sigma Labor Category	Minimum Education	Minimum Experience
Senior Engineer	**BS in Engineering**	**12 Years; 10 Years w/MS**

- Possesses authoritative technical expertise and provides advice on difficult problems.
- Plans and directs projects and provides technical leadership to subordinate engineers and other project team members.
- Makes final decisions in administrative or operational matters and ensures design units' achievement of objectives and goals.
- Occasionally represents the organization in outside discussions and technical forums.
- Generally works without day-to-day oversight, but may on occasion consult with Project Manager or Project Engineer for an independent evaluation of plans for complicated and changing situations.
- Establishes operational objectives and work plans and delegates tasks/assignments to subordinate engineers. Plans and assigns personnel for given projects or tasks.

Sigma Labor Category	Minimum Education	Minimum Experience
Project Engineer	**BS in Engineering / Professional Registration**	**8 Years; 6 Years w/MS**

- Plans and directs projects and provides technical leadership to subordinate engineers and other project team members.
- Occasionally represents the organization in outside discussions and technical forums.
- Generally works with limited day-to-day oversight, but may on occasion consult with Project Manager or Project Engineer for an independent evaluation of plans for complicated and changing situations.
- Establishes operational objectives and work plans and delegates tasks/assignments to subordinate engineers.

Sigma Labor Category	Minimum Education	Minimum Experience
Engineer	**BS in Engineering**	**1 Year**

- Applies the fundamental concepts, practices and procedures of particular field specialization.
- Under general supervision, performs engineering related computations or tasks that is varied and that may be somewhat difficult in character, but usually involves limited responsibility.
- Some evaluation, originality or innovation is typically required.

Sigma Labor Category	Minimum Education	Minimum Experience
Senior Designer	**BS Degree**	**8 Years**

- Possesses and applies a broad knowledge and advance skills of technical principles, practices, and procedures of particular field of specialization for the completion of complex project tasks.
- Plans and conducts assignments, generally involving the larger and more important projects or more than one project, while providing day-to-day supervision and direction to a number of Engineering Technicians working under the direction of the Project Engineer or Senior Engineering Technician.
- Reviews progress, evaluates results, and recommends major changes in procedures to meet schedules and goals.
- May adapt procedures, techniques, tools, materials and/or equipment to meet special project needs. Duties and tasks are varied and moderately complex.
- Resolves most questions and problems, and refers only the most complex issues to Engineer or higher levels.

Sigma Labor Category	Minimum Education	Minimum Experience
Designer	**Associates Degree in Engineering Technology**	**2 Years**

- Applies basic and some advanced skills in procedures, techniques, tools, materials and/or equipment appropriate to area of specialization.
- Duties and tasks are varied but standardized, while performing advanced tasks and functions.
- Resolves routine questions and problems and refers more complex issues to engineers.

Sigma Labor Category	Minimum Education	Minimum Experience
Technician / CADD	**High School / GED**	**1 Year**
• Possesses and applies a broad knowledge of principles, practices, and procedures in the particular field of CADD specialization. • Prepares CADD drawings in conformance with project CADD specifications. • Reviews project progress with Junior or Senior CADD Technician.		

Sigma Labor Category	Minimum Education	Minimum Experience
Project Administration	**High School / GED**	**1 Year**
• This labor category is only used for task order services that go beyond typical overhead services that are done in the normal course of business. Federal agencies will not be charged for services that are considered to be company overhead. • Performs secretarial duties and supports project and technical staff in routine assignments. • Assists with project administration under direct supervision.		